Test cells

Prepare a cDNA library directionally cloned in lambda ZAP II vector

Convert into plasmid library by in vivo excision

Convert into single stranded cDNA library

Anneal to mRNA from reference cells

"Fill in" the plasmids with Klenow fragment of E coli DNA polymerase I and Pfu DNA polymerase

Digest the heteroduplex loops with RNase I

Open the plasmids with S1 nuclease

Ligate to the stuffer (Figure 2)

Transfect into E.coli cells

Plate the library and obtain replicas

Screen the library with radiolabeled stuffer

Select the positive clones and prepare plasmid DNA

Sequence the plasmid DNA with the primers a and b (Figure 2)

Analyze the sequence by comparison with homologous genes from database

Figure 1



Figure 2

ATGTGTGGGGTTTTCTA-STUFFER-AATGGGTTTTGATTGAAGCT (SEQ ID NO. 5)

Ile Cys Ile Glu Ala (SEQ ID NO. 6)
Sequence obtained by SDBC: ATG TGT G-G ATT GAA GCT (SEQ ID NO. 7)

Sequence obtained by RT PCR Ille Cys Val Ille Glu Ala (SEQ ID NO. 8) from MCF7 cells: ATG TGT GTG ATT GAA GCT (SEQ ID No. 9)

Sequence obtained by RT PCR Ile Cys Glu Ile Glu Ala (SEQ ID NO. 10) from normal breast cells:

ATG TGT GAG ATT GAA GCT (SEQ ID NO. 11)

Figure 3